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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,080	01/09/2002	Richard D. Taylor	10010388	7522

7590 02/22/2005

AGILENT TECHNOLOGIES, INC.
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EXAMINER	
DUNCAN, MARC M	

ART UNIT	PAPER NUMBER
2113	

DATE MAILED: 02/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/044,080	TAYLOR ET AL.	
	Examiner	Art Unit	
	Marc M Duncan	2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 4-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 January 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Status of the Claims

Claims 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saltz et al. in view of Nadir et al.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saltz and Nadir as applied to claim 1 above, and further in view of Whittaker.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4-6 are indicated to depend from claim 3. Claim 3 has been cancelled and it is therefore unclear from which claim the current claims are supposed to depend. It is also therefore unclear which limitations applicant intended to include in claims 4-6. The examiner has chosen to examine the claims as if they depend from claim 1 in order to provide a complete response. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saltz et al. in view of Nadir et al.

Regarding claim 1:

Saltz teaches providing a read request to a system memory associated with a cache memory, the read request correlating to an entry in the tag memory and the data store in col. 7 lines 6-19.

Saltz teaches checking the parity bit associated with the correlated entry in the tag memory and the parity bit associated with the correlated entry in the data store in col. 7 lines 27-45.

Saltz teaches if an error is detected in the correlated entry in the data store, declaring a miss in col. 8 lines 9-22.

Saltz does not explicitly teach invalidating the correlated entry in the data store if an error is detected. Saltz does, however, teach detecting parity errors of tags and data.

Nadir teaches invalidating the correlated entry in the data store if an error is detected in col. 9 lines 46-50.

It would have been obvious to one of ordinary skill in the art at the time of invention to combine invalidation process of Nadir with the parity error checking of Saltz.

One of ordinary skill in the art at the time of invention would have been motivated to combine the teachings because a parity error indicates that information in the cache is not valid. Saltz teaches detecting tag and data parity errors, but does not explicitly teach invalidating the data, though an inherent need to recognize that the cache does not contain valid data is clearly present. Nadir meets the need of Saltz to recognize that data exhibiting a parity error is invalid.

Regarding claim 4:

Saltz teaches checking the parity bit associated with the correlated entry in the tag memory in col. 7 lines 27-54.

Saltz teaches if the parity bit associated with the correlated entry in the tag memory indicates no error: determining if the correlated entry in the tag memory indicates a hit in col. 7 lines 27-54.

Saltz teaches if there is a hit, checking the parity bit associated with the correlated entry in the data store in col. 7 lines 27-54.

Regarding claim 5:

Saltz teaches if the parity bit associated with the correlated entry in the data store indicates no error, retrieving the correlated entry from the data store in col. 7 lines 46-54.

Regarding claim 6:

Saltz teaches wherein the retrieving the correlated entry from the data store act comprises retrieving the data line containing the correlated entry in col. 7 lines 46-54. This function is inherent to the operation of a cache.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saltz and Nadir as applied to claim 1 above, and further in view of Whittaker.

Regarding claim 2:

The teachings of Saltz and Nadir are outlined above.

Saltz and Nadir do not explicitly teach the cache being a second level cache. Saltz and Nadir does, however, teach a cache memory.

Whittaker explicitly teaches a second level cache in Fig. 1.

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the second level cache of Whittaker with the cache of Saltz and Nadir.

One of ordinary skill in the art at the time of invention would have been motivated to combine the teachings because the use of a second level cache reduces the miss penalty, which meets an explicit need of Saltz and Nadir for a system that operates at high speed with no performance degradation to the system.

Response to Arguments

Applicant's arguments with respect to claims 1-2 and 4-6 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc M Duncan whose telephone number is 571-272-3646. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on 571-272-3645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

md

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